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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,050	03/05/2002	Travis J. Parry	10008068-1	1359

7590 10/19/2005

HEWLETT-PACKARD COMPANY
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EXAMINER

HUNTSINGER, PETER K

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,050

Applicant(s)

PARRY, TRAVIS J.

Examiner

Peter K. Huntsinger

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ✓ 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ✓ 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 9/11/03.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Travalong

DETAILED ACTION

Claim Objections

1. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n). Claims 20, 21, and 22 should be renumbered to occur before claim 13.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Cooper et al. Patent 6,816,270.

Referring to claim 18, Cooper et al. disclose a system for optimizing the use of printing devices on a network computer system, comprising: a computer connected to

Art Unit: 2624

said network computer system (client 108, 110, and 112 of Fig. 1, col. 3, lines 6-12); and a computer program (intelligent printer driver 402 of Fig. 4, col. 5, lines 52-55) for optimizing the use of at least one printing device accessible to said computer (step 616 of Fig. 6, col. 7, lines 43-47).

Referring to claim 19, Cooper et al. disclose wherein said computer program for optimizing the use of at least one printing device is integrated with a device management program (operating system, col. 4, lines 57-63).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206.

Referring to claim 1, Cooper et al. disclose a method for improving the use of printing devices in a network computer system, comprising: determining the options available for each of said at least one printing devices (step 610 of Fig. 6, col. 7, lines 29-34); determining any installed options currently existing on said at least one printing device (step 612 of Fig. 6, col. 7, lines 34-42); and determining a way to optimize said at least one printing device from said available options and said installed options (step 616 of Fig. 6, col. 7, lines 43-47). Cooper et al. do not disclose expressly determining usage

Art Unit: 2624

characteristics of a printing device. Igval discloses determining the usage characteristics of at least one printing device and determining a way to optimize said at least one printing device from said usage characteristics (col. 2-3, lines 66-67, 1-5).

Cooper et al. and Igval are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to optimize a printer based on the usage characteristics. The motivation for doing so would have been to reduce the amount of ink that is wasted. Therefore, it would have been obvious to combine Igval with Cooper et al. to obtain the invention as specified in claim 1.

Referring to claim 2, Cooper et al. disclose suggesting at least one change to said at least one printing device for optimizing the use of said at least one printing device with said network computer system (step 616 of Fig. 6, col. 7, lines 43-47).

Referring to claim 3, Igval discloses wherein said determining the usage characteristics of at least one printing device comprises determining the usage characteristics of all printing devices operating on said network computer system (col. 2-3, lines 66-67, 1-5).

Referring to claim 4, Igval discloses wherein said determining the usage characteristics of at least one printing device comprises monitoring said at least one printing device to determine said usage characteristics (col. 2-3, lines 66-67, 1-5).

Referring to claim 5, Igval discloses wherein said determining the usage characteristics of at least one printing device comprises retrieving said usage characteristics from a database (Fig. 3, col. 5, lines 1-14).

Referring to claim 6, Cooper et al. disclose wherein said determining the usage characteristics of at least one printing device comprises determining at least one usage characteristic selected from the group consisting of paper use rate, toner use rate, power use rate, time of print job request, consumable use per job rate, and print job request rate (col. 5, lines 1-14).

Referring to claim 20, Cooper et al. disclose wherein said suggesting at least one change to said at least one printing device for optimizing the use of said at least one printing device with said network computer system comprises suggesting an option selected from the group consisting of using a toner miser function, turning on a job retention memory, and suggesting other printing device configurations (step 616 of Fig. 6, col. 7, lines 43-47).

Referring to claim 21, Cooper et al. disclose suggesting at least one service to incorporate with said at least one printing device for providing enhanced usage of said at least one printing device (step 612 of Fig. 6, col. 7, lines 34-42).

3. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206 as applied to claim 1, and in further view of Parulski Patent 6,915,273.

Referring to claim 7, Cooper et al. disclose wherein said determining the options available for each of said at least one printing devices comprises retrieving available options from a file (IPD print properties 409 of Fig. 4, col. 6, lines 18-22). Cooper et al. do not disclose expressly a database. Parulski discloses a database of print options

(col. 1, lines 49-52). Cooper et al. and Parulski are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to provide print options in a database. The motivation for doing so would have been to decrease the time needed for comparing two lists within files. Therefore, it would have been obvious to combine Parulski with Cooper et al. to obtain the invention as specified in claim 7.

Referring to claim 10, Cooper et al. disclose wherein said determining any installed options currently existing on said at least one printing devices comprises retrieving available installed options from a file (printer properties 406 of Fig. 4, col. 7, lines 34-42). Cooper et al. do not disclose expressly a database. Parulski discloses a database of print options (col. 1, lines 49-52). Cooper et al. and Parulski are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to provide installed print options in a database. The motivation for doing so would have been to decrease the time needed for comparing two lists within files. Therefore, it would have been obvious to combine Parulski with Cooper et al. to obtain the invention as specified in claim 10.

4. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206 as applied to claim 1, and in further view of Allen et al. Patent 4,556,959.

Referring to claim 8, Cooper et al. disclose wherein said determining the options available for each of said at least one printing devices comprises querying (col. 7, lines

Art Unit: 2624

63-65). Cooper et al. do not disclose expressly querying the printer. Allen et al. disclose querying a printing device to retrieve said available options (col. 3, lines 23-28). Cooper et al. and Allen et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to query a printer to determine the print options available. The motivation for doing so would have been to determine the printing options at the printer instead of from a driver within the computer, which could be merely a generic print driver. Therefore, it would have been obvious to combine Allen et al. with Cooper et al. to obtain the invention as specified in claim 8.

Referring to claim 11, Cooper et al. disclose wherein said determining any installed options currently existing on said at least one printing device comprises querying (col. 7, lines 63-65). Cooper et al. do not disclose expressly querying the printer. Allen et al. disclose querying a printing device to retrieve installed options (col. 3, lines 23-28). Cooper et al. and Allen et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to query a printer to determine the installed print options. The motivation for doing so would have been to determine the printing options at the printer instead of from a driver within the computer, which could be merely a generic print driver. Therefore, it would have been obvious to combine Allen et al. with Cooper et al. to obtain the invention as specified in claim 11.

Art Unit: 2624

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206 as applied to claim 1, and in further view of Wood et al. Patent 6,453,127.

Referring to claim 9, Cooper et al. disclose wherein said determining the options available for each of said at least one printing devices comprises querying (col. 7, lines 63-65). Cooper et al. do not disclose expressly querying a website. Wood et al. disclose querying a website for print options (col. 6, lines 18-34). Cooper et al. and Wood et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to query a website to determine the print options available. The motivation for doing so would have been to allow users to remotely control printing over the internet. Therefore, it would have been obvious to combine Wood et al. with Cooper et al. to obtain the invention as specified in claim 9.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206 as applied to claim 1, and in further view of Hopkins Patent 5,390,004.

Referring to claim 12, Igval discloses determining a way to optimize said at least one printing device from said usage characteristics (col. 2-3, lines 66-67, 1-5). Cooper et al. disclose determining a way to optimize said at least one printing device from said available options and said installed options (step 616 of Fig. 6, col. 7, lines 43-47). Cooper et al. do not disclose expressly utilizing fuzzy logic. Hopkins discloses using

fuzzy logic to determine a way to optimize a printing device (col. 1, lines 11-17). Cooper et al. and Hopkins are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize fuzzy logic to optimize a printer. The motivation for doing so would have been to utilize a system of reasoning that can cope with uncertain or partial information. Therefore, it would have been obvious to combine Hopkins with Cooper et al. to obtain the invention as specified in claim 12.

7. Claims 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270, Igval Patent 6,045,206 and Dewitt et al. Patent 5,572,672.

Referring to claim 13, Cooper et al. disclose a method for suggesting printing device options in a network computer system, comprising: operating a device management program on a computer connected to a network communication (intelligent printer driver 402 of Fig. 4, col. 5, lines 52-55); operating a computer program on said computer (driver, col. 7, lines 14-17); using said computer program to determine the options available for said at least one printing device (step 610 of Fig. 6, col. 7, lines 29-34); using said computer program to determine any installed options on said at least one printing device (step 616 of Fig. 6, col. 7, lines 43-47); and using said computer program to determine an optimal set of options for said printing device (step 616 of Fig. 6, col. 7, lines 43-47). Cooper et al. do not disclose expressly determining usage characteristics of a printing device. Igval discloses determining the usage

Art Unit: 2624

characteristics of at least one printing device (col. 2-3, lines 66-67, 1-5). Cooper et al. and Igval are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to optimize a printer based on the usage characteristics. The motivation for doing so would have been to reduce the amount of ink that is wasted. Igval does not disclose expressly determining the usage characteristics with a device management program. Dewitt et al. disclose determining the usage characteristics of a peripheral device with a device management program (col. 51, lines 18-24). Cooper et al., Igval, and Dewitt et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to utilize a program to determine usage characteristics of a printer. The motivation for doing so would have been to provide instructions executed by program code. Therefore, it would have been obvious to combine Igval and Dewitt et al. with Cooper et al. to obtain the invention as specified in claim 13.

Referring to claim 15, Cooper et al. disclose wherein said computer program is configured to communicate with said device management program (col. 7, lines 63-65).

Referring to claim 16, Cooper et al. disclose wherein said computer program is a component of said device management program (operating system, col. 4, lines 57-63). The operating system disclosed by Cooper et al. can be considered a device management program as in claim 16 and claim 13 above.

Referring to claim 17, Cooper et al. disclose wherein using said computer program to determine an optimal set of options for said printing device comprises using

Art Unit: 2624

said computer program to compare said installed options with said available options (step 612 of Fig. 6, col. 7, lines 34-42).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270, Igval Patent 6,045,206, and Dewitt et al. Patent 5,572,672 as applied to claim 13, and in further view of Wood et al. Patent 6,453,127.

Referring to claim 14, Cooper et al. disclose using said computer program to determine the options available for said at least one printing device (col. 7, lines 63-65). Cooper et al. do not disclose expressly querying a website. Wood et al. disclose querying a website for print options (col. 6, lines 18-34). Cooper et al. and Wood et al. are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to query a website to determine the print options available. The motivation for doing so would have been to allow users to remotely control printing over the internet. Therefore, it would have been obvious to combine Wood et al. with Cooper et al. to obtain the invention as specified in claim 14.

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper et al. Patent 6,816,270 and Igval Patent 6,045,206 as applied to claim 21, and in further view of Hanzawa Patent 5,506,661.

Referring to claim 22, Cooper et al. disclose suggesting at least one service to incorporate with said at least one printing device but do not disclose expressly

Art Unit: 2624

suggesting at least one service selected from the group consisting of a maintenance service, a charge per page service, and a printing device monitoring service. Hanzawa discloses a charge per page service (col. 2, lines 1-18). Cooper et al. and Hanzawa are combinable because they are from the same field of printing systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to offer a charge per page service. The motivation for doing so would have been to provide the service of printing pages to a customer in exchange for a fee. Therefore, it would have been obvious to combine Hanzawa with Cooper et al. to obtain the invention as specified in claim 22.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2624

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PKH

DOUGLAS Q. TRAN
PRIMARY EXAMINER

Tranlong